

Fact Sheet

SAND SPREADERS FOR SNOW AND ICE CONTROL (SNIC) OPERATIONS

PROBLEM

The DCSENGR, Headquarters, U.S. Army Europe, requested that CRREL review sand spreading capabilities to determine the most efficient and effective way to spread sand and salt or a combination thereof. DCSENGR also requested that CRREL recommend the most favorable types and brands of spreading equipment to use.

SOLUTION

CRREL reviewed its prior work in the area of sand spreaders and completed a survey of the industry as well as a survey of users. There were numerous factors to consider, including types such as dump body, tailgate, or small truck. There are hydraulic-operated, self-operated, or auxiliary-engine-operated spreaders. They come in a variety of sizes and can be corrosion-resistant, painted, stainless steel, or Teflon-coated. There are numerous manufacturers, with the top-rated being narrowed to three.

There are many advantages and disadvantages to the truck body versus the trailer type. The truck body requires a dedicated truck or some easy way to remove the spreader and reinstall it every time it is used. The trailer type can be self-contained and has power provided by the turning wheels.

The lower-cost unit is the completely self-contained wheel-powered trailer spreader. However, its load size is quite small unless refill via dump truck is readily available. The self-contained trailer/spreader with auxiliary engine is unsafe in many ways and is therefore not recommended. The truck-mounted spreader offers the greatest capacity and is considerably safer. Cost varies from \$3000 to \$8000 depending on type, quality (e.g., stainless steel versus painted steel) and the prime mover.

RESULTS

Thirty-four Henderson Chief truck-mountable spreaders with auxiliary engines for use on the 5-ton cargo and 5-ton dump truck and the HMMWV, manufactured by Henderson Manufacturing Company of Henderson, Iowa, were contracted and shipped to Bosnia for spreader operations. Subsequently, 24 additional units were shipped to Kosovo. These spreaders work well if drivers are properly trained to use them. For more information, see ERDC/CRREL Special Report SR-02-1, *Snow and Ice Control (SNIC) Equipment and Its Use by Military Units Worldwide* (http://www.crrel.usace.army.mil/techpub/CRREL_Reports/reports/SR02-1.pdf). To request a paper copy, write to CRREL, Attention: Librarian, 72 Lyme Road, Hanover, New Hampshire 03755-1290.

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September 2003



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